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Public Opinion on Environmental Issues
Results of a National Public Opinion Survey

(U.S.) Council on Environmental Quality
Washington, DC

1980

U.S. Department of Commerce
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The study of U.S. public opinion on a variety of environmental issues was commissioned by the Council on Environmental Quality and components of three other federal agencies. The purpose in commissioning the poll was to learn about key public opinion trends over the past decade, to obtain information about new areas of environmental concern.

KEYWORDS: *Public opinion, *Environmental surveys, *Pollution.

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Resources for the Future, a nonprofit research organization in Washington, D.C., conducted a national public opinion survey (the RFF survey) in 1980 for the Council on Environmental Quality. The study was designed and the data were analyzed and interpreted by Robert Cameron Mitchell, a sociologist and Senior Fellow at Resources for the Future. The sample design, field work, and initial data preparation were performed by Roper and Cantril, a joint venture of the Roper Organization and Cantril Research, Inc.

Roper and Cantril interviewed 1,289 adults in person between January 26 and February 9, 1980. Between March 24 and April 5, 287 more people were interviewed, increasing the final sample to 1,576. An interview took approximately one-half hour. In order to maximize the number of questions asked, the sample was divided into two equivalent parts, and some questions were asked of only one or the other subgroup.

The survey sought to sample the civilian population 18 years of age and older. The sampling plan was a multistage probability sample -- that is, it employed widely used statistical methods to select a random sample of the population. Once an eligible person was identified, as many as four attempts were made to arrange an interview. Seventy-three per cent of the individuals selected were ultimately interviewed.

All sample surveys are subject to sampling error. The size of the possible sampling error varies according to the size of the sample (the larger the sample, the smaller the possible error) and the percentage responding one way or another to a particular question (percentages near 50 have larger possible errors than those near 10 or 90). For the entire sample of 1,576 respondents, the chances are 95 out of 100 that the results on a particular question are within 2 to 3 percentage points of the results that would have been obtained from a very large sample selected and interviewed in a similar manner. Some additional small changes might have resulted from the responses of individuals who could not be interviewed.

Public Opinion on Environmental Issues

Results of a National Public Opinion Survey

Council on Environmental Quality
Department of Agriculture
- Forest Service
- Office of Environmental Quality
- Science and Education Office
- Soil Conservation Service

Department of Energy
- Office of Consumer Affairs
- Office of Environment
- Solar Energy Research Institute

Environmental Protection Agency
- Office of Congressional Affairs
- Office of Public Awareness
- Office of Toxic Substances

1980

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EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL ON ENVIRONMENTAL QUALITY
722 JACKSON PLACE, N. W.
WASHINGTON, D. C. 20006

This study of U.S. public opinion on a variety of environmental issues was commissioned by the Council on Environmental Quality and components of three other federal agencies -- the Department of Agriculture, the Department of Energy, and the Environmental Protection Agency. Our purpose in commissioning the poll was to learn about key public opinion trends over the past decade, to obtain information about new areas of environmental concern and the degree of support for environmental protection, and to determine public responses to difficult choices between environmental protection and other values.

Robert Mitchell of Resources for the Future (RFF) conducted the design and analysis of the poll with the assistance of the Roper Organization and Albert H. Cantril, president of Cantril Research, Inc.

The survey found that the United States is, by and large, a nation which is willing to pay the price for environmental quality. We are a people deeply concerned about the presence of toxic chemicals in our environment. We want the government to test and regulate new chemicals before they are allowed on the market. We prefer environmentally benign energy sources -- such as conservation and solar energy -- to sources that pose health risks and other dangers. And we are more concerned about living near nuclear power plants and hazardous waste dumps than we are about living near power plants fired by coal. We still care very much about saving endangered species and protecting our fragile wetlands. On the other hand, while we still have a sustaining commitment to cleaning up air and water pollution and solving other environmental problems, they are no longer viewed as crisis issues by most Americans, whose top concerns now relate to inflation and the energy shortage.

This poll, one of the the most extensive and probing surveys on environmental issues conducted to date, greatly increases our understanding of public opinion about energy, regulatory and economic problems as they relate to environmental concerns. The results of the poll should be useful to government officials and citizens alike as we work together to build an environmentally sound and sustainable future for our nation.

Gus Speth

GUS SPETH
Chairman

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Public concern played a major role in the sudden emergence of environmental problems as a leading item on the national agenda at the beginning of the 1970s. This concern, which showed up in the polls in the late 1960s, manifested itself dramatically in April 1970 when hundreds of thousands participated in Earth Day events all over the country. As "environment" became a familiar word, some people believed that public enthusiasm was a fad that would die as soon as the cost of pollution control programs became apparent. Instead, strong public support for pollution control has endured.

At the close of the first environmental decade -- when anxiety about taxes, regulation, energy supply, and the state of the economy is high -- it seems appropriate to take stock of the public's views on environmental issues, as measured by the polls. This study reviews the findings of several polls taken in the past 15 years and reports on a special comprehensive national environmental survey conducted by Resources for the Future for the Council on Environmental Quality in January-February 1980. The RFF poll repeated some key questions of earlier polls in order to assess trends in public opinion about environmental protection. It also included questions on newer environmental issues in order to compile benchmark data.

To make the RFF survey as realistic a test of public

opinion as possible, the poll included a number of questions with difficult tradeoffs. Moreover, it began with questions that required respondents to compare the environment with a wide range of other concerns. Because of this unusual polling technique and because the poll was conducted at a time of exceptional concern about both economic and international issues (Afghanistan and Iran were much in the news), the RFF survey may be regarded as an especially strict test of support for environmental issues.

The overall results of the RFF survey -- and those of numerous other polls conducted in the past decade -- demonstrate the fact that environmental protection enjoys continued strong backing. The intensity of public concern about environmental problems has lessened somewhat since its peak on Earth Day 1970. Other problems, in particular, national defense and inflation, are more urgent now. But the answers to a broad range of probing questions show abiding public support for national efforts to protect environmental quality. Environmental issues seem to have become an enduring social concern, much like health care, education, and other basic issues.

Judged by their answers in several surveys, most of the population is willing to pay for environmental protection. In 1980, for example, in answer to the University of Chicago's National Opinion Research Center's oft-repeated question

whether spending on domestic programs is too much, too little, or about right, 50 percent of the respondents said that spending on environmental problems was "too little"; only 15 percent answered that the amount was "too much." Despite the very large sums spent in the 1970s on environmental protection and despite public preoccupation with economic and energy concerns, a plurality of respondents to the 1980 RFF poll thought environmental protection was too important to consider the cost. Presented with three alternatives, 42 percent chose the one which read: "Protecting the environment is so important that requirements and standards cannot be too high, and continuing improvement must be made regardless of cost" (emphasis in the original).

When asked for an opinion on the statement, "An endangered species must be protected, even at the expense of commercial activity," 73 percent of the respondents in the RFF poll agreed; only 20 percent disagreed. Given three options on a tradeoff between growth and environment, only one in five respondents chose the statement, "We must relax environmental standards in order to achieve economic growth."

Although most people appear unwilling to sacrifice environmental standards in order to achieve economic growth, the prospect of inadequate energy supplies is another matter. In the RFF poll, 73 percent of the respondents were concerned "a great deal" about fuel shortages, and 8 out of 10 said

that they were personally affected "a great deal" or "a fair amount" by energy shortages. In various polls asking energy-environment tradeoff questions in the late 1970s, a plurality chose energy. For example, in September 1979, an NBC News poll found that 47 percent of respondents considered "building a needed refinery or pipeline" more important than "protecting the environment"; 40 percent said that protecting the environment was more important. Yet in answer to questions about future energy sources, the environmentally benign energy choices such as solar energy and conservation came out on top in all the polls, including the RFF survey.

Asked about the seriousness of the pollution problem in this country, 7 in 10 respondents to the 1980 RFF survey answered that it is "somewhat" or "very serious"; only 8 percent felt that it is not a serious problem. One-half the respondents believed air pollution to be a serious problem in their own communities. Similarly, 39 percent were worried "a great deal" and 44 percent "a fair amount" about water pollution. Forty-six percent were very worried about toxic chemicals in the environment, and 64 percent of the respondents expressed deep concern over the disposal of hazardous wastes.

Particularly striking in the RFF survey is evidence that environmentalism retains its widespread appeal. Seventy-three percent of the respondents said that the term "environmentalist" applies to them "definitely" or "somewhat." The

percentage of people who regard themselves as "active participants" in the environmental movement has shrunk from 13 percent in 1978 to 7 percent in 1980. Yet the proportion expressing sympathy with the environmental movement remains the same, 62 percent. Only 4 percent are unsympathetic. Moreover, support for the environmental movement is not limited to the affluent, the well educated, or the young; it cuts across most demographic categories.

Polling on Environmental Issues

A sign of the relatively inconsequential role of environmental issues in national affairs before the 1970s is the conspicuous absence of public polls on the subject. Some private polling about pollution was commissioned by industry, however; a detailed survey conducted by Louis Harris in 1964 found that "rising public interest in the problems of air and water pollution was the most frequently recurring theme."

The number of public polls on environmental issues gradually increased until the early 1970s, when they became a regular occurrence. But despite the large number of questions on environmental, resource, and energy matters, relatively few were repeated regularly, so that trend analysis was difficult. Nevertheless -- thanks to Harris, Gallup, Roper, the Opinion Research Corporation, and others -- there is now a large body of data on public opinion about a wide variety of environmental issues, and there are some basic

data on trends.

Because some regard the environment as the ultimate "motherhood" issue, they are inclined to discount poll results; the assumption is that people automatically give the environment lip service even when they harbor negative views about pollution control. If the polls simply asked for approval or disapproval of environmental protection, they would deserve such criticism. In practice, such questions are rarely asked. The polls have become more sophisticated over the years. For example, increasingly often tradeoff questions are asked. They require individuals to make choices between environmental protection and higher prices, higher taxes, lower economic growth, and higher unemployment. By and large, polls using these questions indicate that people are willing to pay for environmental quality. The 1980 RFF findings confirm these results.

The Environment in the Context of Other Issues

In 1965, George Gallup asked one of the first questions about environmental issues in a public poll. His interviewers presented a list of 10 national problems and asked which 3 the government should devote most of its attention to in the next year or so. As shown in Table 1, "reducing pollution of air and water" was chosen by 17 percent in 1965, placing it ninth, just after "improving highway safety" and a few percentage points ahead of "beautifying America." When

Table 1

RANKING OF NATIONAL PROBLEMS

Q. 1. First, I would like to ask you which three of these national problems you would like to see the government devote most of its attention to in the next year or two?

	1965 April[1]	1970 April	1980 Jan.-Feb.[2]	Change 1965-1980
Reducing the amount of crime	41%	56%	61%	+20
Reducing unemployment	35	25	48	+13
Conquering "killer" diseases	37	29	41	+ 4
Improving public education	45	31	35	-10
Helping people in poor areas	32	30	29	- 3
Reducing pollution of air and water	17	53	24	+ 7
Improving housing and run-down neighborhoods	21	27	20	- 1
Reducing racial discrimination	29	25	13	-16
Improving highway safety	18	13	7	-11
Beautifying America	3	5	5	+ 2
N=	c. 1,500	c. 1,500	840	

1. Data for 1965 and 1970 are from Gallup surveys. The Gallup 1970 survey was taken immediately after the first Earth Day.

2. RFF survey. The number of cases is smaller than the total (N=1,576) because the question was asked of only a subsample.

Gallup repeated the question in 1970 after Earth Day, the respondents choosing pollution tripled, and it was in second place. Since 1970, the government has in fact devoted a great deal of attention to environmental problems, and it appears that the state of the environment is no longer viewed as a crisis. When the question was asked in the 1980 RFF survey, unemployment had risen to second place as an immediate government priority, and air and water pollution had dropped to sixth place.

Responses to another question in the 1980 survey also suggest that other concerns have supplanted environmental protection in terms of urgency. Of 12 broad national goals presented for selection of the most desirable, two goals each received one-quarter of the votes: "Making sure that this country has strong defense forces" and "Fighting rising prices." None of the others, which covered a broad spectrum from protecting nature to fighting crime, was "most important" to more than 11 percent of the respondents.

Although environmental protection is no longer viewed as a crisis issue, support for national environmental protection efforts remains strong. Annually from 1973 to 1978 and again in 1980, the National Opinion Research Center asked a national sample whether "we're spending too much money, too little money, or about the right amount" on each of 11 social problems. In 1980, 48 percent said that the country is spending

"too little" on the environment, and 31 percent said that the amount was "about right." Only 15 percent believed that we are spending "too much," up from 10 percent in 1978. Percentages of respondents who chose "too little" are shown in Figure 1. As more action has been taken to control pollution over the years, the number of people who said that "too little" is being spent on environmental problems has dropped somewhat from its 1973 high of 60 percent. Nonetheless, the environment remains high on the list of social problems.

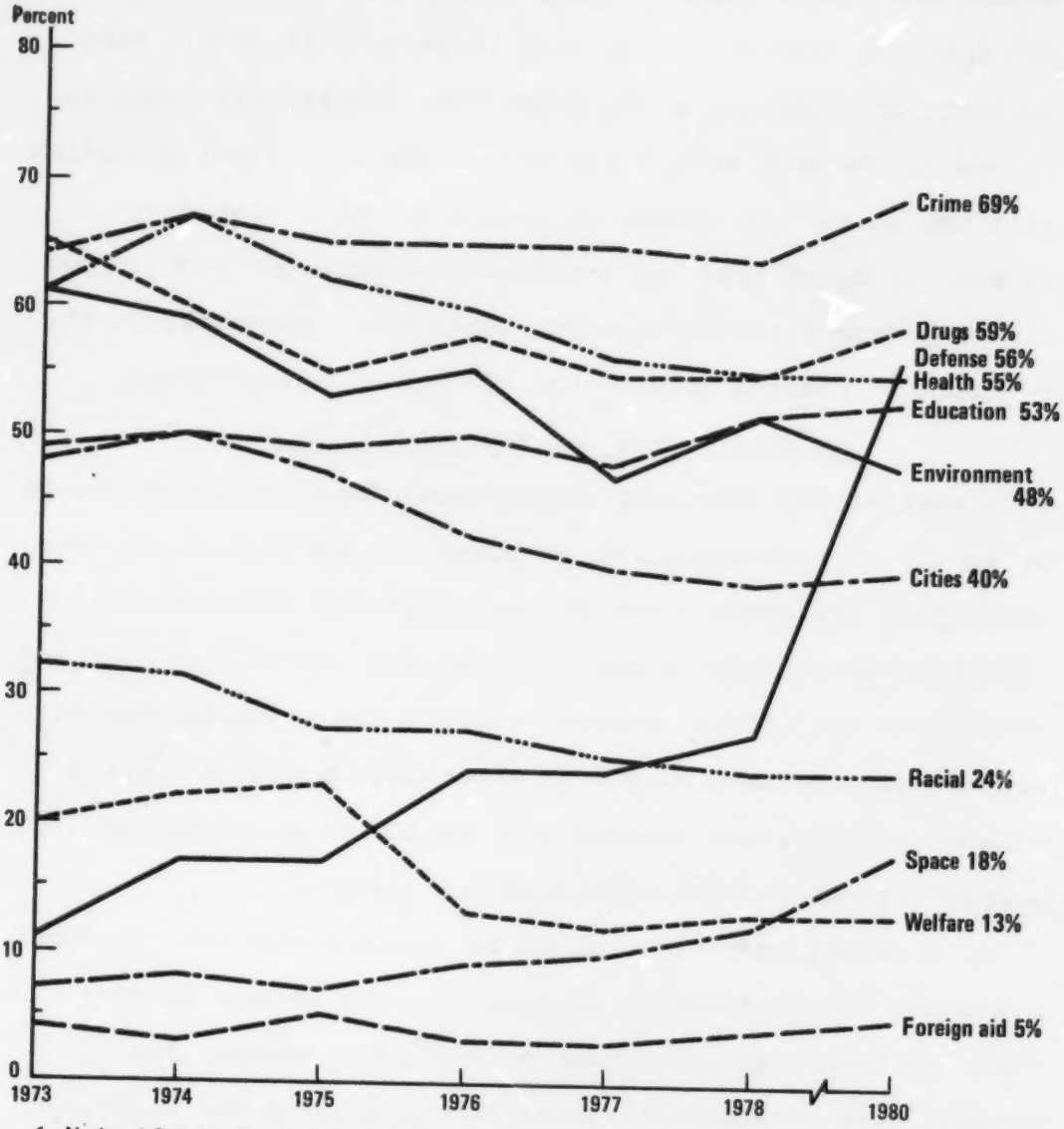
The Environment and Economic Tradeoffs

Asking individuals to choose among rival alternatives is an especially revealing way to determine public preferences. Such tradeoffs often arise in discussions of environmental policy because controls may increase the cost of business and government activities, because maintenance of environmental quality is sometimes viewed as inconsistent with a rapidly growing economy, and because some of the proposed energy supply options involve environmental costs.

In recent years several polls included economic tradeoff questions in an effort to discover whether people believe that environmental protection is worth the costs. The results have consistently shown strong support for environmental programs.

One question, used three times between 1975 and 1978, was: "In order to pay for cleaning up the environment,

FIGURE 1
PERCENT SAYING THAT WE'RE SPENDING "TOO LITTLE" ON ELEVEN PROBLEMS, 1973-80[1]



1. National Opinion Research Center, University of Chicago, General Social Survey, personal interview survey, with an average sample size of approximately 1,500. The 1980 interviews were conducted in February-April with N=1,468.

"We are faced with many problems in this country, none of which can be solved easily or inexpensively. I'm going to name some of these problems, and for each one I'd like you to tell me whether you think we're spending too much money on it, too little money, or about the right amount . . . ."

Companies may have to charge more for their products and services, and government may have to increase taxes. Do you think that now it is more important to pay higher prices to protect the environment, or to pay lower prices but have more air and water pollution?" In 1975, the percentage of people who said that it was more important to pay the higher prices was three times the percentage who "wanted to pay lower prices but have more air and water pollution" (58 to 17 percent). In summer 1978, just after California adopted Proposition 13, the figures were virtually the same -- 62 to 18 percent. Harris asked a different question on this topic in October 1979. His question described the "continual debate going on in Washington" between those who want to clean up the environment as much as possible and those who think that pollution control costs too much and must be restrained. He then asked: "Would you enforce the toughest environmental standards possible, even if they increased the cost of things to both business and the consumer, or would you be satisfied with a somewhat lower level of environmental standards if this turned out to be less costly?" To this strongly worded question, 45 percent chose the "toughest environmental standards possible" versus 36 percent who chose "somewhat lower" standards and 12 percent who said that "it depends."

A general question, first used by the Opinion Research

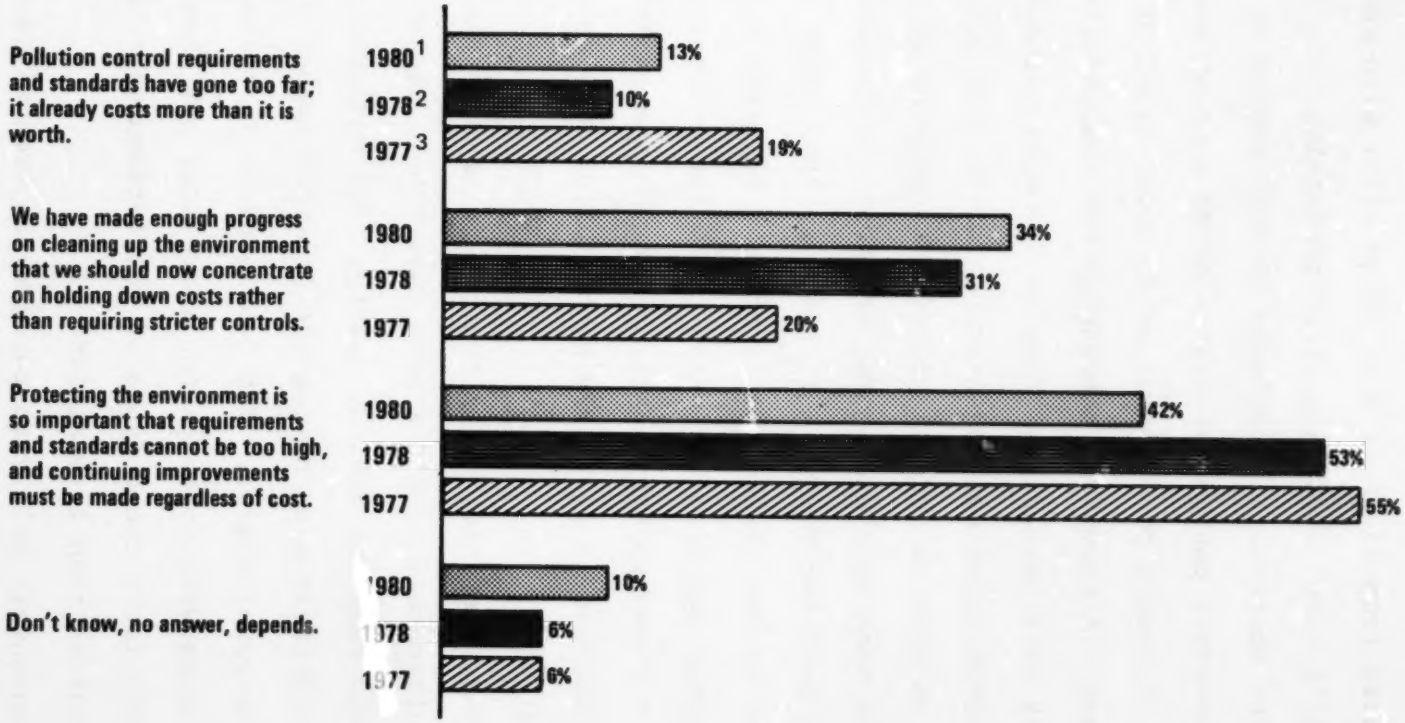
Corporation in 1977, was asked by RFF in 1978 and in 1980. Between 1977 and 1980, there was some diminution in the number of people who supported the strongest pro-environmental option. The percentage of those who felt that "continuing improvement must be made regardless of cost" declined from 55 (a clear majority) to 42 (a plurality). The percentage of those favoring the most stringent cost-control position -- that "pollution control already costs more than its worth" -- also declined, from 19 to 13 between 1977 and 1980. At the same time, the percentage of those in the middle ("We have made enough progress . . . that we should now concentrate on holding down costs") increased from 20 to 34 (see Figure 2).

The RFF results are consistent with a September 1979 Roper poll, which asked whether environmental protection laws and regulations have gone "too far, or not far enough, or have struck about the right balance." Sixty-five percent of the respondents in the Roper survey said that the balance was right (36 percent) or that environmental protection has not gone far enough (29 percent). Only 24 percent said that environmental laws and regulations have gone too far. Roper's polls have shown that the percentages of those approving the balance or wanting more protection have remained the same from 1973 to 1979. The percentage of those who believed that the government has gone too far has gradually

FIGURE 2

VIEWS ABOUT POLLUTION CONTROL, 1979-80

Q. 34 I am going to read you three points of view regarding pollution control. Please tell me which one best represents your opinion.


Pollution control requirements and standards have gone too far; it already costs more than it is worth.
1980[1] 13%
1978[2] 10%
1977[3] 19%
We have made enough progress on cleaning up the environment that we should now concentrate on holding down costs rather than requiring stricter controls.
1980 34%
1978 31%
1977 20%
Protecting the environment is so important that requirements and standards cannot be too high, and continuing improvements must be made regardless of cost.
1980 42%
1978 53%
1977 55%
Don't know, no answer, depends.
1980 10%
1978 6%
1977 6%

1. RFF survey, N=1,576.
2. Resources for the Future telephone survey, July-August 1978, N=1,076.
3. Opinion Research Corporation telephone survey, January 1977, N=1,003.

increased from 13 in 1973 to 24 in 1979, with the percentage of "don't know" declining proportionately.

The continuing reluctance of most people to weaken environmental control programs in the name of economy is shown in recent polls which asked about types of government spending. Although 69 percent of the respondents in a January 1979 Harris poll favored "a major cutback in federal government spending," 57 percent in the same poll opposed "a major cutback in federal government spending if that meant cutting back in spending for environmental protection." A Gallup poll for Newsweek in February 1980 found that 87 percent of the respondents wanted to maintain or increase government spending for water pollution control programs. Roger Seasonwein Associates conducted an extensive poll for Union Carbide in fall 1979 with similar findings. It concluded:

> Most Americans think that it is the consumer who ultimately pays for most government regulations, and they see health, safety, and environmental regulations as having the greatest impact on consumer prices. Yet many apparently believe the price well worth paying since they say they want precisely these types of regulations made more, rather than less strict.

The Seasonwein poll also asked about economic and environ-

mental impact statements. Many more people favored than opposed their use, but environmental impact statements received somewhat more support (66 percent) than economic impact statements (59 percent).

Growth

One of the consequences of the rise of environmental awareness has been a reconsideration of economic growth. Prior to the 1970s, growth was widely regarded as the driving force behind increased prosperity and an ever increasing standard of living. Growth is still regarded very favorably by most people, but there is far wider recognition that rapid growth may entail environmental costs.

The polls now indicate that, forced to make a choice, a strong majority of people will choose environmental quality over growth. A Harris survey for the Soil Conservation Service in October 1979 gave people the choice between a country which believes that economic growth is more important than protecting the environment and one where the environment is more important than growth. Two to one the sample preferred the environment (52 to 24 percent) and 21 percent was neutral.

In 1978 and 1979 Harris asked people whether they favored or opposed new industrial growth in their communities under three different conditions -- with no explicit conditions stated, with the air "a little dirtier," and with the

air "a lot dirtier." When no conditions were stated, more people than not favored new industrial growth (59 to 36 percent). When some environmental effects were introduced -- when growth "made the air a little dirtier" -- support dropped to 49 percent, and 43 percent opposed growth). If the air would be "a lot dirtier," only 15 percent favored new industrial growth in their communities, with 80 percent opposed.

The RFF survey asked a general question which attempted to elicit views on the relationship of economic growth to environmental protection. The question had been asked in 1978 by the Opinion Research Corporation -- which of three views people most agreed with: we should slow growth to protect the environment, we should relax environmental standards to facilitate growth, or we can achieve both at the same time. In 1980 a much smaller percentage of respondents said that growth should be sacrificed to protect the environment (27 percent in 1980 versus 58 percent in 1978). However, a larger percentage (39 versus 18) said that <u>both goals</u> can be achieved. There has been no increase in the percentage of people who believe that environmental standards should be relaxed in order to achieve growth; only one out of five people in each survey believed that they should. Table 2 shows the responses to this question.

Past surveys have shown strong sentiment for protecting

Table 2

VIEWS ABOUT ECONOMIC GROWTH AND ENVIRONMENTAL PROTECTION

I am going to read you three statements about environmental protection and economic growth. Please listen carefully and tell me which statement you agree with the most.

	1978[1]	1980[2]
We must relax environmental standards in order to achieve economic growth.	20%	20%
We can achieve our current goals of environmental protection and economic growth at the same time.	18	39
We must accept a slower rate of economic growth in order to protect the environment.	58	27
Depends (volunteered).	4	4
No opinion, don't know.		9
N=	1,002	1,576

1. ORC Public Opinion Index, Vol. 36, Nos. 17 and 18, September 1978. Interviewing took place August 24-30, 1978.

2. RFF survey.

wilderness areas and for preserving trees in their natural state in the National Forests rather than increasing the forests' yield of timber. The RFF survey in 1980 asked whether marsh and swamp areas should be developed or preserved in their natural state. Noting that many of these areas have been drained for residential, industrial, and agricultural use, the survey said:

> Some people say we should drain more of these areas because land for development is becoming

harder to find. Other people say that these marsh and swamp areas should be kept as they are because they help maintain nature's balance by providing breeding areas for fish and feeding places for ducks among other things. Who do you agree with most -- those who feel these swamp and marsh areas should continue to be drained, or those who feel they should be preserved in their natural state, or don't you have a strong feeling one way or the other?

Only 11 percent of the respondents stated that they had no strong feelings on the question. The preservation of wetlands received very strong support, with 65 percent favoring preservation and 10 percent supporting their development. On a related topic, a large majority agreed that "an endangered species should be protected even at the expense of commercial activity." In 1980, 73 percent took this position, slightly more than the 67 percent in an RFF national survey in 1978.

Energy

Although there is firm public support for environmental regulation despite its recognized costs and although the public is unwilling to sacrifice environmental standards for economic growth, answers to various energy tradeoff questions

indicate that the public does not generally favor protecting the environment at the expense of an adequate supply of energy. However, opinion is divided, and the proportion leaning to one side or the other of the energy-environment tradeoff varies with the question wording and energy-related events at the time of the poll.

A question which Roper has asked annually since 1973 is: "Are you more on the side of adequate energy or more on the side of protecting the environment?" In 10 surveys conducted between October 1973 and September 1979, only once was environmental protection chosen by a plurality (1976). Otherwise, the results are similar to those of September 1979, when 43 percent chose "adequate energy," 38 percent chose "protecting the environment," and 10 percent said "neither" or "no conflict."

Five recent (1979-early 1980) polls with environment-energy tradeoff questions also showed public opinion leaning toward energy development, with strong majorities favoring energy in two and a much closer division in three. Three of them were taken in July 1979, shortly after a period of trying gasoline shortages. One, a Harris poll, found that 61 percent of respondents favored slowing down the movement to clean up air and water pollution "if could be shown that the country could cope with its energy problem more effectively," up from 45 percent who expressed this view in a 1976 Harris

poll. Another poll found 55 percent of the respondents in favor of "relaxing laws and regulations designed to protect the environment in order to produce more energy."

A more general question was asked at this time by a CBS News-New York Times poll: "Which do you think is more important -- producing energy or protecting the environment?" Here the results were a virtual standoff: 41 percent believed producing energy to be more important and 43 percent favoring the environment. In September 1979, an NBC News poll asked whether protecting the environment or building a needed refinery or pipeline" was more important. The pipeline was preferred by a margin of 47 to 40 percent. Yet another energy-environment tradeoff question was asked by the University of Michigan Election Study survey in late January-early February 1980, whether "you think the government should relax environmental protection regulations to increase the use of . . . energy sources, or should the government keep environmental protection regulations unchanged even though this may delay the production of more energy?" Here 29 percent favored unchanged environmental protection measures, 34 percent would relax them, and 15 percent would relax them but with qualifications; 22 percent were unsure or had no opinion on this question.

Each tradeoff question requires respondents to assume that the choice posed is one that has to be made. But most

of these questions do not measure the belief -- which a number of people may share -- that energy development is not necessarily incompatible with environmental quality or that environmentally benign rather than environmentally risky energy sources should be pursued. As a way of testing public views on this subject, in 1980 RFF asked individuals to look ahead to the year 2000 and to select from seven energy sources the two or three that "we should concentrate on the most." They were then asked for the one that should receive "the least effort to develop." As indicated in Table 3, the most preferred energy source is also the most environmentally benign. Solar energy was chosen by two out of three people as one of two or three sources on which the nation should concentrate. This level of popularity is consistent with the results of other polls. Nuclear energy was chosen most often (by 33 percent) as the technology which should receive the least effort.

A significant percentage of people appears to be willing, at least to some degree, to act upon their positive feelings about solar energy. The RFF survey asked homeowners (78 percent of the sample owned or expected to own their own homes shortly) whether they had considered installing a solar energy system of any kind for their homes and, if so, what their plans were. Nationally, 28 percent of homeowners said that they had considered installing a solar system.

Table 3

ENERGY SOURCES WHICH ARE MOST AND LEAST PREFERRED AS NATIONAL PRIORITIES FOR THE YEAR 2000[1]

Q. 40. Here is a list of several ways to get energy. (HAND RESPONDENT CARD) Looking ahead to the year 2000, and this nation's energy needs, which two or three of these sources of energy do you think we should concentrate on the most? (READ WHILE RESPONDENT LOOKS AT CARD:)

This list includes coal; nuclear energy; energy conservation steps such as more and better home insulation and cars that get good mileage; water power from dams or waterfalls; solar energy including energy from the sun and the wind; oil and natural gas; and synfuels which are a new kind of fuel made by industrial plants which convert oil shale into oil or coal to a liquid or gas. Which two or three do you think we should concentrate on the most?

Q. 41. Now, looking at the card again, which one of these sources of energy would you like to see us spend the least effort to develop? (RECORD ABOVE)

Rank		40. Concentrate on most	41. Spend least effort	Most minus least
1	Solar energy	61%	6%	+55
2	Energy conservation	35	3	+32
3	Coal	36	9	+27
4	Water power	31	10	+21
5	Oil and natural gas	28	9	+19
6	Synfuels	26	9	+16
7	Nuclear energy	23	33	-10
	None	-	6	
	No opinion	2	15	

1. 1980 RFF survey, N=1,576.

The figure breaks down as follows: 1 percent of all homeowners had already done so, 3 percent definitely planned to, 16 percent may install a solar system, and 8 percent had decided against a system. Individuals who had made positive decisions had higher incomes, were younger, and were particularly likely to have received more education than the others. Regionally, there was considerable variation -- the Pacific and Mountain states had the highest percentage (29) of solar enthusiasts and the southern states the lowest (11).

Several questions in the RFF survey provide some insight into the reasons for nuclear power as the least preferred option for future energy development. Presented with four choices, 38 percent of respondents felt that nuclear power plants are "dangerous" or "not so safe" as solar power. Only 15 percent thought that they were "very safe," and 40 percent found them "somewhat safe." Paralleling these results, 20 percent of respondents said that all existing nuclear power plants should be shut down, 47 percent would use those that have been built but would build no more, and 23 percent said that building nuclear power plants should continue.

Public concerns about nuclear power plant safety are also suggested by answers to a question on siting, discussed below, in which a majority indicated that they would not want a nuclear power plant located within 100 miles of their homes.

Concern about Environmental Issues

The positions that people take when presented with some of the alternatives and tradeoffs described above result from many factors, including how knowledgeable respondents are about the issues, how concerned they are about the problems, and how much faith they have in government ability to deal with them. RFF asked several questions to elicit some of these underlying feelings.

The 1980 RFF survey asked the respondents how worried or concerned they were about each of nine domestic problems. The survey repeated four items that Potomac Associates had asked at three points in the middle 1970s, as shown in Table 4.

Not surprisingly, 1980 respondents indicated a high level of concern about inflation; more than 80 percent were worried "a great deal" about it. This concern matches that shown during the 1974 recession.

Energy shortages are also of great concern in 1980. The increase from 57 percent in 1974 to 73 percent in 1980 parallels the findings of other polls and suggests that awareness of the seriousness of the energy problem is increasing. Concern about poverty, asked only in 1980, is significantly below the levels of concern for inflation and energy shortages; 44 percent of respondents were concerned "a great deal" about poverty.

RFF also surveyed public concern regarding six environmental problems. The items on air and water pollution had been asked in the Potomac Associates polls in 1972, 1974, and 1976. In January-February 1980, 38 percent of the public was concerned "a great deal" about reducing water pollution. In a regular Roper survey in late March 1980, when the same interviewers asked the same question of a different national sample, 54 percent expressed the same level of concern about water pollution. The difference between the January and March results is too large to be attributed to sampling error. The earlier 1980 results suggest that the intensity of concern about water pollution dropped from the 1972-76 levels; in contrast, the March 1980 data indicate that the intensity of concern has been relatively constant over these years.

There are two possible reasons for the different survey results. In the earlier RFF survey, Afghanistan and Iran were dominating the news and the polls. In this atypical climate of opinion, when concerns about the security of foreign relations and oil supplies were unusually high, concern about environmental issues may have been somewhat attenuated.

The second and more likely possibility is that the sequence of questions in the initial RFF survey affected results. Unlike most surveys on this topic, RFF began by

Table 4

PERCENT SAYING THAT THEY ARE WORRIED
A GREAT DEAL, NOT MUCH, OR NOT AT ALL
ABOUT VARIOUS DOMESTIC PROBLEMS, 1972-80,
RANKED BY DEGREE OF CONCERN IN 1980[1]

Q. 11. Now, I'd like to find out how worried or concerned you are about a number of problems I am going to mention: a great deal, a fair amount, not very much, or not at all. If you aren't really concerned about some of these matters, don't hesitate to say so.

		1972 June	1974 April	1976 May	1980 Jan.-Feb.	1980 Mar.
a. How worried are you about the rise in prices and the cost of living?	A great deal	-	83%	75%	81%	86%
	Not much, not at all		4	4	3	3
b. Shortages of oil, gasoline, coal, natural gas, electricity, or other fuels?	A great deal	-	57	-	73	-
	Not much, not at all		17		7	
c. The disposal of industrial chemical wastes that are hazardous?	A great deal	-	-	-	-	64
	Not much, not at all					9
d. Cleaning up our waterways and reducing water pollution?	A great deal	61	51	57	39	54
	Not much, not at all	8	12	9	16	12
e. The presence of toxic chemicals such as pesticides or PCBs in the environment?	A great deal	-	-	-	-	46
	Not much, not at all					20
f. The problems of the poor?	A great deal	-	-	-	44	-
	Not much, not at all				13	

		1972 June	1974 April	1976 May	1980 Jan.-Feb.	1980 Mar.
g. The purity of the drinking water in your community?	A great deal	-	-	-	42	-
	Not much, not at all				29	
h. Reducing air pollution?	A great deal	60	46	55	36	-
	Not much, not at all	10	15	11	23	
i. Reducing the amount of unnecessary noise in this community	A great deal	-	-	-	11	-
	Not much, not at all				68	
N=		1,802	1,865	1,071	1,576	2,003

1. Data for 1972-76 are from the "State of the Nation" studies done by Potomac Associates. A dash indicates that the item was not included in a survey. The data labeled January-February are from the RFF survey for CEQ and include 287 additional interviews in late March. The data labeled March 1980 are from a regular Roper survey. The four items asked in March were included because two of them had been inadvertently omitted in the January-February RFF survey. The other two, on inflation and water pollution, were included for comparative purposes.

asking respondents to rank pollution relative to other social problems such as national defense and the economy. The concern question immediately followed the comparison questions. In this context, environmental issues may have appeared somewhat less pressing. Questions in the March Roper survey, like most other surveys on this topic, including the Potomac Associates surveys in earlier years, did not ask for comparisons. A small (N=287) supplementary survey in late March using the initial RFF sequence of questions confirmed the tempering effect of comparison questions.

Accordingly, data from the initial 1980 RFF survey may represent a more "realistic" measure of concern; the Roper data, collected a few weeks later, may be more comparable to surveys of earlier years and therefore are more appropriate to trends evaluation.

With these factors in mind, the following conclusions may be drawn regarding public concern about the six environmental problems:

- There has been no decline in concern about water pollution since 1974 and 1976.
- Although air pollution was not included in the March 1980 Roper survey, which forms the basis for comparison, it appears from other evidence that there has been some decline in concern about air pollution.
- Concern about the disposal of industrial hazardous chemical wastes in 1980 is very high -- 64 percent expressed "a great deal" of concern about it in the Roper survey. This level is higher than has been expressed for air and water pollution in past surveys. Other results, described below, confirm this finding.
- There is substantial concern about toxic chemicals in the environment in 1980.
- There is also substantial concern about drinking water quality.
- A small but distinct minority is concerned "a great

deal" about noise pollution.

In 1980, levels of concern about these same environmental issues are fairly evenly distributed (within 5 percentage points of the mean) across sex, race, age, income, education, and rural-urban categories. The following are the major exceptions to this generalization:

- Blacks are much more concerned than whites about the purity of drinking water and noise pollution. Two out of three blacks are concerned "a great deal" about drinking water purity, compared with one in three whites.
- People who live in cities of 250,000 or more and in their suburbs are much more concerned about air pollution, toxic chemicals in the environment, and drinking water purity than those who live in rural areas.
- Older middle-aged people (55-64) are particularly concerned about the disposal of chemical wastes; the 18-34 age group is significantly more concerned about air pollution than its elders.

Siting

Another way of measuring public concern on environmental issues is to ask how people feel about living near facilities that may emit pollutants or pose some other kind of safety or environmental risk. Previous national surveys -- at least those that are publicly available -- rarely measured

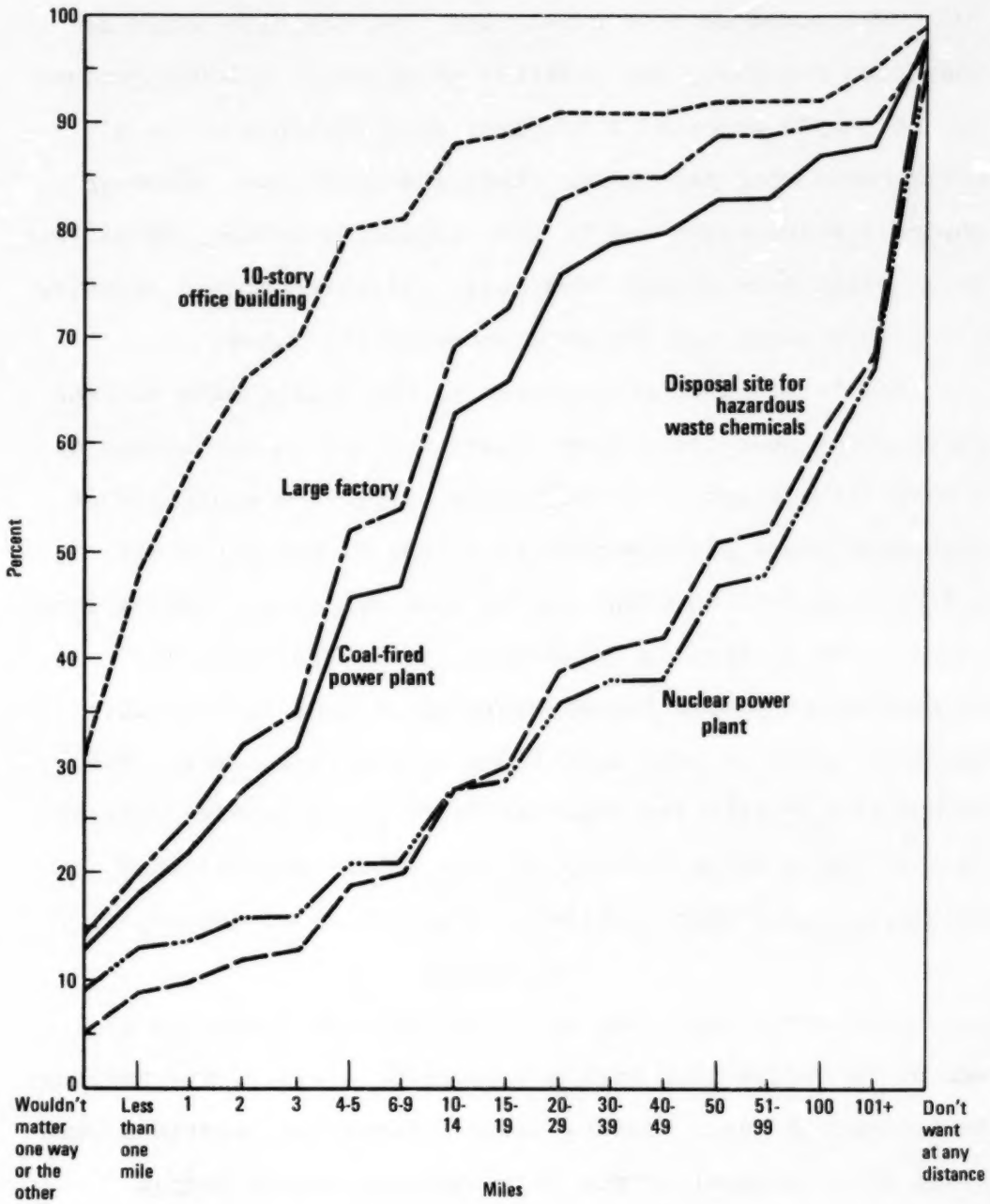
public views in this way. RFF asked individuals to say how near their homes five facilities could be sited before they would "want to move to another place or to actively protest, or wouldn't it matter to you one way or another how close it was?" Each of the five installations -- a 10-story office building, a large factory, a coal-fired power plant, a nuclear power plant, and a hazardous waste disposal site -- would be built and operated according to government environmental and safety regulations.

Figure 3 shows respondents' willingness to accept the various installations. Reactions to the different types of facilities differ strikingly. People objected the least to the office building and the most to the nuclear power plant and hazardous waste disposal site. For the 10-story office building, 31 percent said that it would not matter how near the building was located. Another 17 percent said that they would not be inclined to move or to protest if the building were located within 1 mile of their homes. As the figure shows, at a distance of 14 miles, 88 percent were willing to accept the construction of a 10-story office building; at the other extreme, 4 percent did not want it at any distance.

In contrast, only 5 percent and 10 percent, respectively, of respondents did not care how near a hazardous waste dump or a nuclear power plant was located. Aversion to the siting of a disposal site for hazardous waste chemicals is

FIGURE 3

CUMULATIVE PERCENTAGE OF PEOPLE WILLING TO ACCEPT NEW INDUSTRIAL INSTALLATIONS AT VARIOUS DISTANCES FROM THEIR HOMES



very strong despite the fact that respondents were given special assurances about this kind of installation --that "disposal could be done safely and that the site would be inspected regularly for possible problems." A lower percentage of people accepted a disposal site within 5 miles of their homes than any of the other installations, although beyond 5 miles reactions to the disposal site and the nuclear power plant were almost identical. Neither reached majority acceptance until the distance exceeded 100 miles.

People are much more averse to the siting of a nuclear power plant near their homes than they are to the siting of a coal-fired plant. Although only 28 percent would accept a nuclear power plant within 14 miles, 63 percent would accept a coal-fired plant within that distance. Taking into account the difference in wording of the question, the percentage of people who would accept a coal-fired plant within 5 miles is near that found by Harris in 1978. The acceptance profile for the coal-fired plant is very similar to that for a large factory, a fact which suggests that people evaluate them similarly as potential neighbors.

Knowledge

Just after Earth Day in 1970, CBS News conducted a survey in conjunction with a television special, The National Environmental Test. Twenty-seven information questions were asked of a national sample in a multiple choice format.

Most were quite specific; for example, one asked whether earthquakes, corrosion, or stress caused by freeze and thaw would be most likely to cause a break in the Alaska pipeline. For the CBS News battery of questions, 18 percent of the respondents scored at the 70 percent correct level or better.

The 1980 RFF survey also asked knowledge questions. Unlike the test of a decade earlier, RFF intended to measure fairly basic knowledge. Although the percentage of those scoring 70 percent or more was slightly higher in the RFF survey than in the CBS poll, the level of knowledge about environmental issues is still not very high. On only three of nine questions in the RFF poll did majorities answer correctly. It should be noted here that a low level of public knowledge is not unique to environmental issues. For example, at about the same time the RFF poll was taken, individuals in a national sample were asked to state the current inflation rate; only one out of three knew what it was. Fifty-one percent were unable even to venture a guess.

The RFF knowledge items dealt with environmental and energy topics which have been relatively widely publicized (Three Mile Island, Love Canal, acid rain), which are of fundamental importance (whether we have to import oil; whether all, most, or only some chemicals can cause cancer

in rats; whether a nuclear power plant can explode like a bomb; the nature of synfuels), or which were used in earlier polls and could be used for comparison over time. Five of the RFF questions used a multiple choice format, and the other four were open ended.

Table 5 lists the questions and the results. At the beginning of 1980 the much publicized accident at Three Mile Island was correctly identified by three out of four people, but what happened at Love Canal was a mystery to all but 22 percent of the sample. The other knowledge items fall between these extremes. Seven years after the Arab oil boycott, only 63 percent knew that the nation does not produce enough oil to meet present energy needs. However, judging by data from 1977 and 1978 Gallup polls, awareness seems to be increasing. In 1977, 52 percent knew that the United States imports oil, and in 1978, the figure had risen to 60 percent.

Judging from responses in the 1970 CBS News poll and in the 1980 RFF survey, the public is not necessarily more knowledgeable about air pollution today than it was 10 years ago. In 1980, 45 percent of the respondents knew that automobiles (rather than factories or incinerators) are the major cause of air pollution, compared to 55 percent in 1970. However, there was a 20 percent increase from 1970 to 1980 in those who knew that nuclear power plants are built

near water because they need water "for cooling purposes" rather than as "another source of power" or "as a disposal place for waste." Yet in 1980 only one in three people was aware of the fact that it is impossible for a nuclear power plant to explode like an atomic bomb.

For the five energy questions, 28 percent of the respondents answered none or only one correctly; 32 percent answered four or all five correctly. Of the three general environmental questions, one-third of the sample answered all three incorrectly and 29 percent knew the correct answer to at least two of the three. Although, as expected, a high knowledge score correlates with an individual's educational level, neither of these scales is correlated with people's views about environmental protection or the environmental movement. Individuals in favor of environmental protection were no more or no less knowledgeable than those who are less in favor of it.

As noted, the relatively low levels of knowledge about the environment are consistent with the levels found in other policy areas. Simply because the public has a relatively low level of knowledge in a policy area, public opinion on the issues is not invalid. Just as people have opinions about inflation even though they may not know the current rate of inflation within several percentage points, so their views on waste dumps for hazardous chemicals should

Table 5

ENVIRONMENTAL AND ENERGY KNOWLEDGE QUESTIONS

Paraphrase of question	Correct	Partially correct	Incorrect	Don't know
1. What happened at Three Mile Island? (E) (Ans: Nuclear power plant accident, close to meltdown, etc.)	74%	3%	4%	19%
*2. Do we produce enough oil or do we have to import oil? (E) (Ans: Have to import)	63	N.A.	29	7
*3. Are nuclear power plants built near bodies of water because water is used as a power source, for waste deposit or for cooling? (E) (Ans: Cooling)	52	N.A.	27	21
*4. Which is the major source of air pollution: factories, automobiles or incinerators? (Ans: Automobiles)	45	N.A.	46	9
*5. Is cancer caused in rats by every, most or only some chemicals if fed in large enough doses? (G) (Ans: Only some)	42	N.A.	45	12
6. What are synthetic fuels? (E) (Ans: Gas or oil made from coal, oil shale or tar sands)	37	5	15	42
*7. Is it possible for a nuclear power plant to explode and cause a mushroom shaped cloud like the one at Hiroshima? (E) (Ans: No)	31	N.A.	52	16
8. What is acid rain? (G) (Ans: Polluted rain that harms lakes, land and water; that is like vinegar, etc.)	26	6	9	58

Paraphrase of question	Correct	Partially correct	Incorrect	Don't know
9. What happened at Love Canal, near Niagara Falls? (G) (Ans: Chemical or toxic waste dump, place where chemical wastes harmed people or made them move, etc.)	22	4	8	65

1. With the exception of Question 1, each was asked of only one-half the sample.

G = part of the three-item General Environmental Knowledge Scale
E = part of the five-item Energy Knowledge Scale
N.A. = not applicable
* = presented in a multiple choice format

be taken seriously even though they may not be able to say what happened at Love Canal. Nevertheless, because opinion based on knowledge is highly desirable, the knowledge findings in the RFF survey challenge environmental educators and others concerned with dissemination of information on these issues.

Regulatory Performance

Much discussion has centered on federal regulatory and environmental programs -- whether the public has confidence in the programs, believes that they adequately reflect public views, and considers them necessary.

A new and controversial area of government regulation is the testing and control of chemicals that may cause cancer or otherwise seriously threaten human health or the environment. The RFF survey, prefacing its question with a

warning that screening of chemicals is costly and "might keep potentially useful chemicals off the market," asked whether individuals think that the government should "wait until a chemical is already in use and has been shown to present a problem before taking action" or whether the government should "conduct an extensive screening program to try and make sure all chemicals are safe before they are used." An overwhelming 83 percent felt that all chemicals should be screened before use. Only 8 percent would wait until there is a problem before taking action (the remaining 8 percent either had no opinion or did not subscribe to either view).

The RFF survey also probed public views on government action regarding chemicals, including saccharin, which were described as causing cancer in some people. Eighty to 90 percent of the respondents favored some government control, with the percentages favoring warning labels and outright bans varying by chemical; the figures are shown in Table 6.

Overall, as shown in Figure 4, the public seems confident that the federal government will be able to protect the environment (67 percent had "a great deal" or "some" confidence), and it is even more confident that the government will "find a satisfactory way to meet our future energy needs" (71 percent have "a great deal" or "some" confidence).

Table 6

VIEWS ON REGULATION OF CANCER-CAUSING CHEMICALS

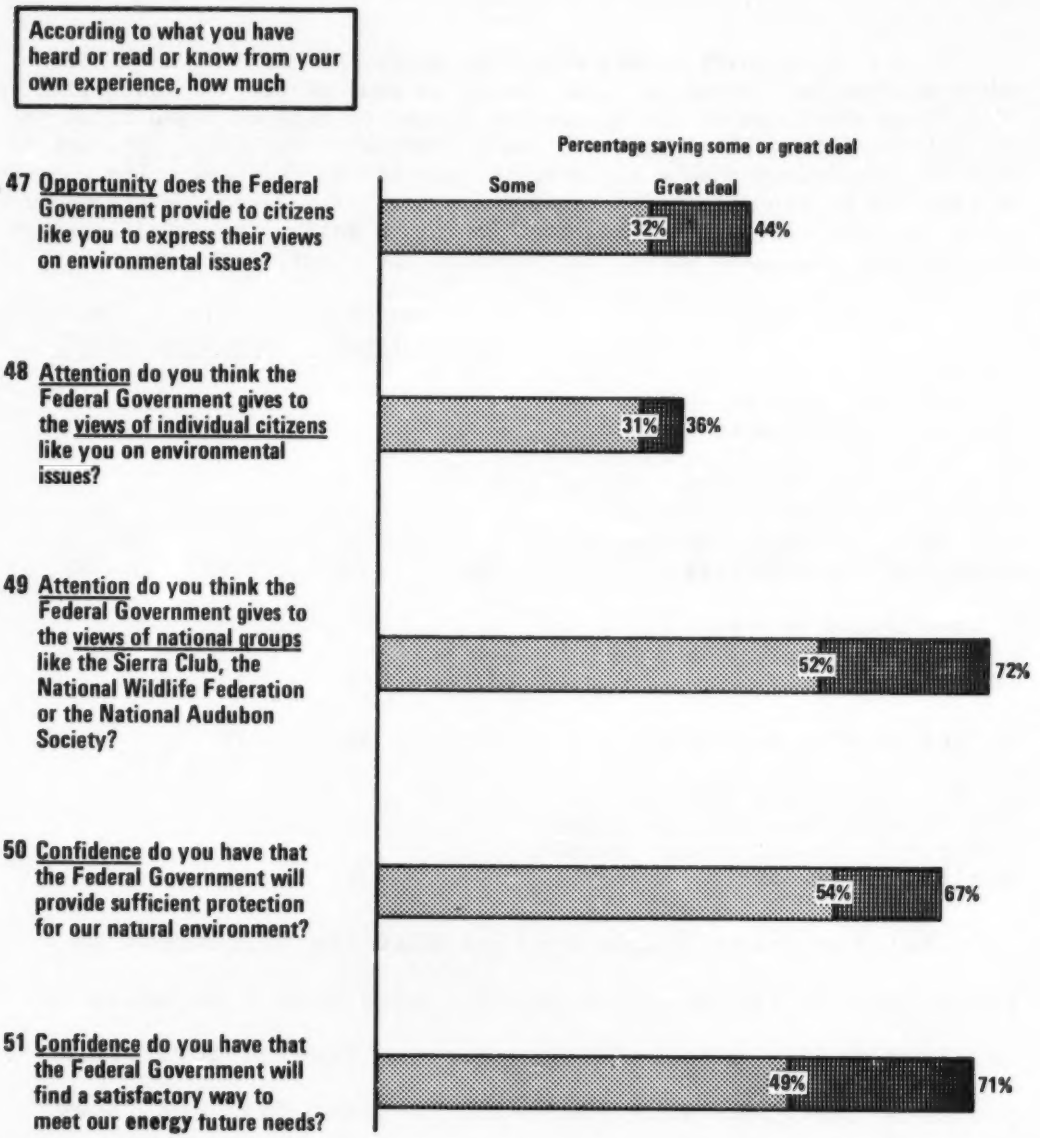
Q. 37. I am going to describe four different kinds of chemicals which studies have shown to cause cancer in some people. I would like you to tell me which one of the approaches listed on this card you think the Federal Government should take for each chemical. The first approach is that the government should ban certain uses of the chemical. The second is that the government should require clear warning labels on all products using the chemical but let them continue to be sold. The third approach is that the government should not regulate the chemical at all.

	Ban	Warning label	Not regulate	No opinion
a. The first kind of chemical that has been shown to cause cancer is one commonly used to preserve food like bacon. Which one approach should the government take? (Probe: That is, chemicals like nitrites)	33%	57%	5%	5%
b. The second is a chemical used as an ingredient in some hair dyes	31	60	3	6
c. The third is saccharin	16	66	12	7
d. The fourth is a chemical used to color food like hot dogs, soft drinks and ice cream. (Probe: that is, Red Dye #2)	47	44	4	5

Yet far fewer people believe that the government is responsive to the public's views. Less than a majority of respondents (44 percent) felt that the federal government provides "citizens like you" with 'a great deal" or "some" opportunity to express their views on environmental issues. Still fewer thought that the views of individuals are heard, and only one in three believes that their views would be

FIGURE 4

VIEWS ABOUT PUBLIC PARTICIPATION AND GOVERNMENT EFFECTIVENESS IN ENVIRONMENTAL AND ENERGY POLICY[1]


According to what you have heard or read or know from your own experience, how much
Percentage saying some or great deal
Some
Great deal
Q. 47 Opportunity does the Federal Government provide to citizens like you to express their views on environmental issues?
32%
44%
Q. 48 Attention do you think the Federal Government gives to the views of individual citizens like you on environmental issues?
31%
36%
Q. 49 Attention do you think the Federal Government gives to the views of national groups like the Sierra Club, the National Wildlife Federation or the National Audubon Society?
52%
72%
Q. 50 Confidence do you have that the Federal Government will provide sufficient protection for our natural environment?
54%
67%
Q. 51 Confidence do you have that the Federal Government will find a satisfactory way to meet our energy future needs?
49%
71%

1. RFF survey. These questions were asked only in the Y version of the questionnaire, N=736. Respondents were given four answer categories: a great deal, some, little, none at all. The percentage of those who volunteered "it depends" or had no opinion varied from 3 to 7.

paid a "great deal" or "some" attention. Respondents felt that the government pays attention to the views of national environmental groups, however. In this case almost three out of four people believe that the groups are listened to "a great deal" or "some."

The Environmental Movement

Public support for the environmental movement has remained strong over the decade, according to all available evidence. Asked by RFF whether they consider themselves active environmentalists, sympathetic to the environmental movement, neutral, or unsympathetic to the movement, 6 out of 10 people (62 percent) said that they are active or sympathetic, a level of support that is almost identical to that found in 1978 when this question was first asked by RFF. The 7 percent in the 1980 survey who regarded themselves as "active participants in the movement" is lower than the 1978 figure of 13 percent. However, there is no increase in those who say they are unsympathetic to the movement. In 1978, 6 percent took this position, and in 1980 it was 4 percent. Unlike the anti-nuclear movement about which opinion is polarized, the environmental movement continues to enjoy a very high level of support and an extraordinarily small amount of opposition from the public. This fact is confirmed by another question in the RFF survey which asked individuals whether being an environmentalist "definitely

applies to you somewhat, or not at all." In response, 18 percent said "definitely" and 55 percent said "somewhat," for a total of 73 percent who accept the environmentalist label, at least in part.

Not only is support for the environmental movement strong; it is quite broad based. Figure 5 shows the percentages of the population who are sympathetic, unsympathetic, and active by category. Only among blacks, individuals with less than a high school education, and residents of the East South Central states (Mississippi to Kentucky) are fewer than 50 percent of the respondents sympathetic to the movement. For no category was more than 6 percent unsympathetic.

In the RFF survey one form of individual participation in environmental matters -- writing letters to public officials -- was measured. People were asked whether they "had occasion to write a letter or contact a public official directly about an environmental matter or not" in the past 2 years. Overall, 12 percent said that they had done so. A followup question asked whether the letter supported or opposed greater environmental protection. Nine letters in 10 favored more environmental protection. Those who said that they had written letters tended to be in the higher income brackets and, especially, to have more education. Forty-two percent of those who regard themselves as environmental activists said that they have contacted a public official in the last 2 years.

Another form of participation in environmental efforts is collecting newspapers or bottles for recycling. Almost one-half the respondents (49 percent) said that they have done so at least once in the past 2 years. Among environmental activists, the total was 69 percent, and even many of those who are unsympathetic to the environmental movement said that they had recycled newspaper or bottles in the past 2 years (38 percent).

Conclusion

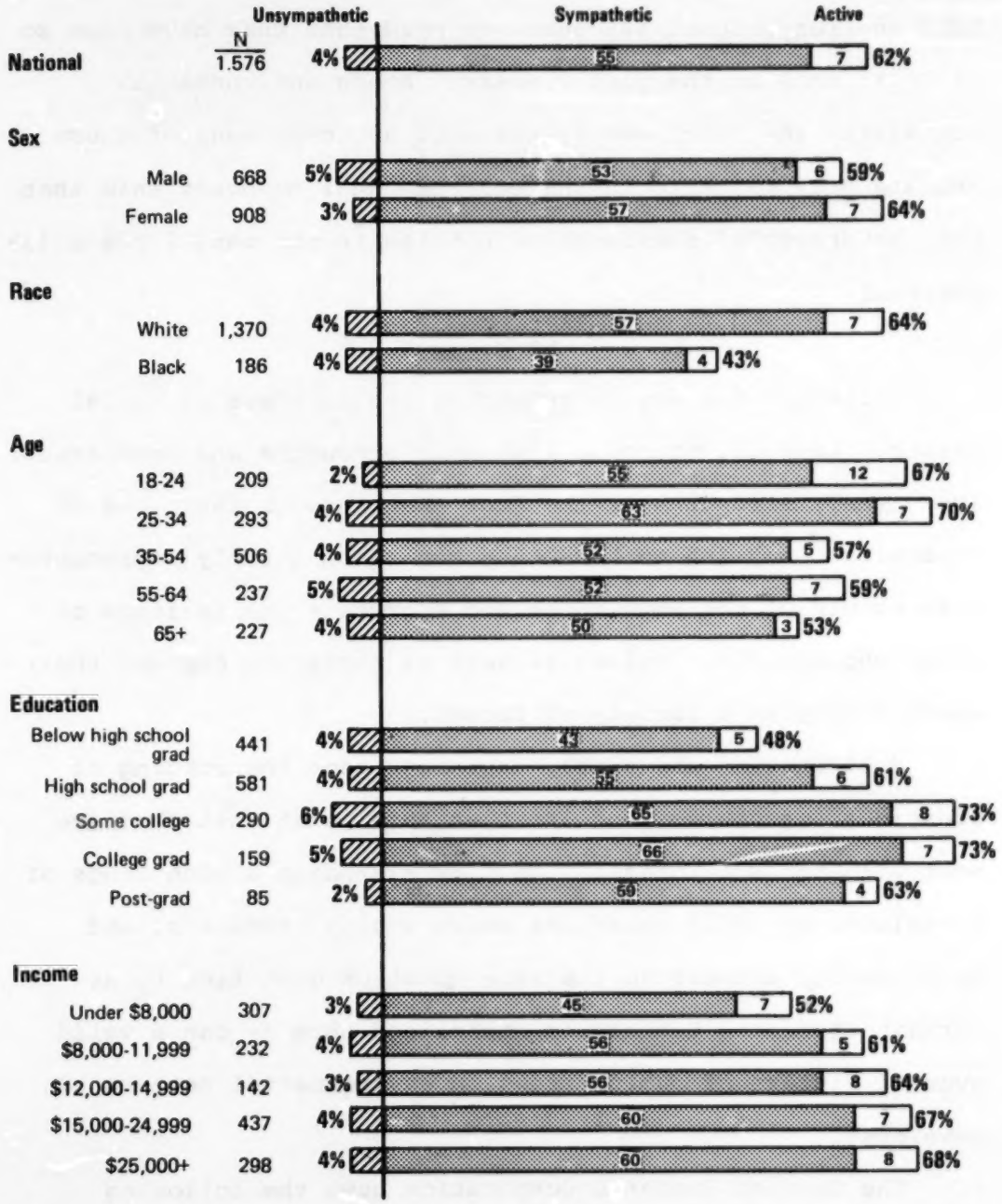
Polls are one way of measuring public views of social issues. Like all methods, they have strengths and weaknesses. Among their strengths is the fact that through their use of scientific sampling methods they can reach a truly representative sample of the population and aggregate the feelings of those who are inarticulate as well as those who express their views freely in a variety of forums.

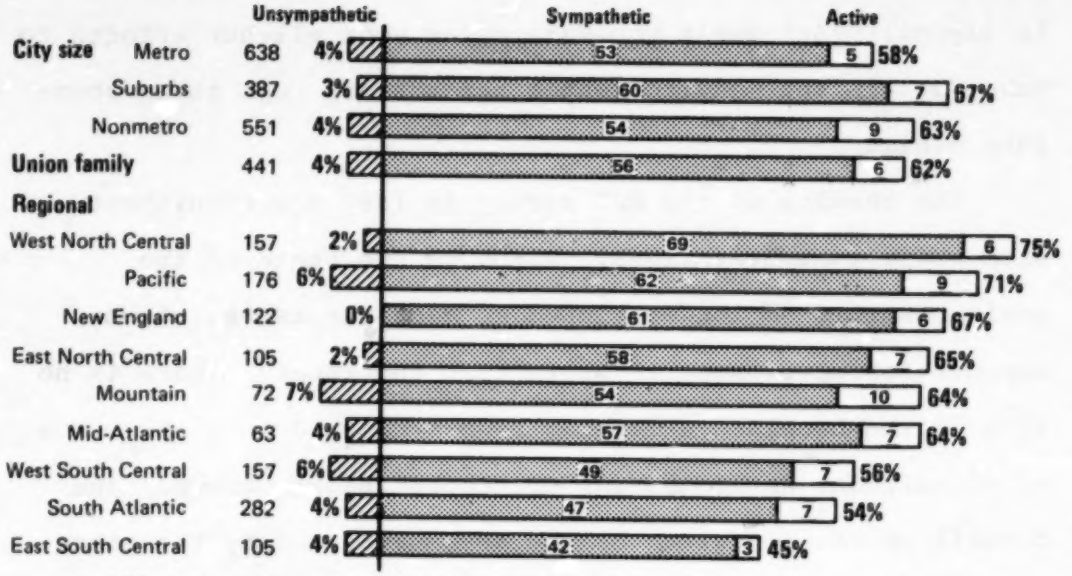
Poll results are highly dependent upon the wording of questions, of course, and it is at this point that they are most vulnerable to misuse. Only by examining a wide range of questions, by using questions which employ tradeoffs, and by comparing answers to the same question over time to ascertain trends -- techniques emphasized here -- can a valid overall picture of public views on environmental matters be developed.

The Opinion Research Corporation gave the following

FIGURE 5

VIEWS OF THE ENVIRONMENTAL MOVEMENT[1]




Unsympathetic
Sympathetic
Active
City size
Metro 638 4% 53 5 58%
Suburbs 387 3% 60 7 67%
Nonmetro 551 4% 54 9 63%
Union family 441 4% 56 6 62%
Regional
West North Central 157 2% 69 6 75%
Pacific 176 6% 62 9 71%
New England 122 0% 61 6 67%
East North Central 105 2% 58 7 65%
Mountain 72 7% 54 10 64%
Mid-Atlantic 63 4% 57 7 64%
West South Central 157 6% 49 7 56%
South Atlantic 282 4% 47 7 54%
East South Central 105 4% 42 3 45%

1. RFF survey, Q. 54. In recent years, the environmental movement has been very active. Do you think of yourself as: an active partcipant in the environmental movement, sympathetic towards the movement but not active, neutral, or unsympathetic towards the environmental movement?

The categories not shown on this figure and the national percentages are: neutral, 31 percent; not sure, 3 percent.

advice in 1977 based on its poll of environmental issues:

> All told, if public opinion is any guide, it would seem that business continues to have little recourse but to learn to cope with the fact that environmental protection no longer is the exclusive domain of a handful of professional social critics and environmental activists, but the continuing concern of the public as a whole.

In 1978 Louis Harris said that although the public is willing to take many risks because of the energy shortage, it is also shaking a stern finger in the face of those responsible and

is saying: "But don't you dare relax your all-out efforts to make certain that environmental hazards are kept to an absolute minimum."

The results of the RFF survey in 1980 are consistent with these generalizations. Although the state of the environment is no longer viewed as a crisis issue, strong support for environmental protection continues. There is no sign of the backlash which had been predicted once the costs of significant environmental protection became known. The overall impression given by the RFF survey and by the other polls at the end of the 1970s is that far from being a fad, the enthusiasm for environmental improvement which arose in the early 1970s has become a continuing concern -- a concern which shows every sign of remaining for the foreseeable future.

Appendix: Polls Cited

Field date	Source
ABC News/Harris	
Oct. 16-26, 1978	ABC News/Harris Survey Vol. 1, No. 2 (Jan. 4, 1979)
Jan. 17-22, 1979	ABC News/Harris Survey Vol. I, No. 16 (Feb. 8, 1979)
June 13-17, 1979	ABC News/Harris Survey Vol. I, No. 80 (July 2, 1979)
July 7-15, 1979	ABC News/Harris Survey Vol. I, No. 109 (Sept. 4, 1979)
July 7-15, 1979	ABC News/Harris Survey Vol. I, No. 110 (Sept. 6, 1979)
CBS News/New York Times Polls	
April 28-29, 1970	Robert Chandler, Public Opinion: Attitudes on Contemporary Political and Social Issues (New York, R.R. Bowker, 1972)
July 1979	Public Opinion Aug./Sept. 1979, p. 23
April 10-14, 1980	News Release: CBS News/New York Times Poll, April 1980 (Parts I and II)
Center for Policy Studies of the Institute for Social Research, University of Michigan	
January-February 1980	1980 American National Election Study, January-February 1980 Survey (initial tabulations)
Gallup	
April 2-7, 1965	The Gallup Poll: Public Opinion 1935-1971 (New York: Random House 1972), p. 1939

April 29-May 5, 1970	Ibid., p. 2248
July 18-19, 1979	Newsweek, July 30, 1979
Aug. 3-6, 1979	Gallup Opinion Index. No. 170
Feb. 1-11, 1980	Newsweek, March 3, 1980
NBC News/Associated Press	
Sept. 10-11, 1979	News Release: NBC News/Associated Press Poll No. 121, September 1979
National Opinion Research Center, University of Chicago	
1973-1978, 1980	General Social Survey; annual 1973-1978, biannual beginning 1980. Data provided by NORC in advance of official release.
Opinion Research Corporation	
May 30-June 22, 1975	ORC Public Opinion Index, Vol. 33, No. 16 (August 1975)
Jan. 7-14, 1978	ORC Public Opinion Index, Vol. 35, Nos. 3 and 4 (February 1977)
August 1979	Data provided by ORC
Potomac Associates	
June 1972	William Watt and Lloyd A. Free, State of the Nation (New York: Universe Books, 1973) [field work by Gallup]
April 1974	William Watt and Lloyd A. Free, State of the Nation 1974 (Washington, D.C.: Potomac Associates, 1974) [field work by Gallup]
May 1976	Gladwin Hill, Lloyd A. Free, and Donald R. Lesh, Policy Perspectives, Protecting the Environment: Progress, Prospects and the Public View (Washington, D.C.: Potomac Associates, 1977) [field work by Gallup]

Resources for the Future	
July 7-Aug. 10, 1978	Resources (Resources for the Future, No. 60) September-October 1978
The Roper Organization	
Sept. 22-28, 1979	Roper Reports 79 (9), September 1979 Special tabulation for Resources for the Future
Roger Seasonwein	
Sept. 26-Oct. 28, 1979	Roger Seasonwein Associates, The Vital Consensus: American Attitudes on Economic Growth (New York, Union Carbide Corp., 1980), p. 55
Nov. 5-25, 1979	Roger Seasonwein Associates, The Conservation Decision (New York, Union Carbide Corp., 1979) p. 11 ff.
U.S. Soil Conservation Service	
Oct. 19-Nov. 21, 1979	U.S. Soil Conservation Service Press Release, January 17, 1980 (conducted by Louis Harris and Associates)

☆ U.S. GOVERNMENT PRINTING OFFICE: 1980 O— 329-221/6586